AMENDMENTS TO THE CLAIMS

The following is a complete, marked up listing of revised claims with a status identifier in parentheses, underlined text indicating insertions, and strikethrough and/or double-bracketed text indicating deletions.

LISTING OF CLAIMS

1. (Currently Amended) A method of compensating for process-induced CD variations in a pattern generator printing patterns on masks ~~o compensate for process variations when printing a pattern on a workpiece~~, said method comprising:

determining a two-dimensional critical dimension (CD) distribution associated with [[said]] pattern printed on a first mask ~~said workpiece~~,

generating a two-dimensional dose compensation file to equalize variations in said two-dimensional CD distribution,

adjusting, in said mask pattern generator, the dose in accordance with said two-dimensional dose compensation file, and

patterning a second mask ~~workpiece~~ using said adjustment of the dose in said mask pattern generator ~~two-dimensional compensation file~~.

2. (Previously Presented) The method of claim 1, wherein said determining includes predicting the two-dimensional CD distribution.

3. (Previously Presented) The method of claim 1, wherein said determining includes measuring the two-dimensional CD distribution.

4. (Original) The method of claim 1, wherein said two-dimensional compensation file includes pattern data.

5. (Original) The method of claim 1, wherein said two-dimensional compensation file includes dose compensation data.

6. (Original) The method of claim 1, wherein said two-dimensional compensation file is a correction map.

7. (Original) The method of claim 1, wherein said two-dimensional compensation file is a two-dimensional dose compensation profile.

8. -10. (Canceled) .

11. (New) A pattern generator apparatus for writing patterns on masks, said apparatus comprising:

means for determining a two-dimensional critical dimension (CD) distribution associated with a pattern printed on a first mask;

means for generating a two-dimensional dose compensation file to equalize for variations in said two-dimensional CD distribution;

means for adjusting the dose in accordance with said two-dimensional dose compensation file; and

means for patterning a second mask using said adjustment of the dose in said mask pattern generator.

12. (New) A method of compensating for CD variations on a workpiece while printing a pattern on said workpiece, said method comprising:

determining two-dimensional critical dimension (CD) variations associated with said pattern being printed;

estimating future CD variations of said patterning process;

compensating the dose while patterning said workpiece by pro-actively equalizing for said estimated CD variations; and

patterning said workpiece using said compensation of the exposure dose.

13. (New) An apparatus for compensating for CD variations on a workpiece while printing a pattern on said workpiece, said apparatus comprising:

means for determining two-dimensional critical dimension (CD) variations associated with said pattern being printed;

means for estimating future CD variations of said patterning process;

means for compensating the dose while patterning said workpiece by pro-actively equalizing for said estimated CD variations; and

means for patterning said workpiece using said compensation of the dose.